

## AMENDMENTS TO THE CLAIMS

1. (canceled).
2. (currently amended) ~~A salt-like chemical compound of the formula I as claimed in claim 1,~~The process according to claim 6 wherein the heterocycle is pyrrolium, indolium or imidazolium.
3. (currently amended) ~~A salt-like chemical compound of the formula I as claimed in claim 1,~~The process according to claim 6 wherein M is aluminum or boron.
4. (currently amended) ~~A salt-like chemical compound as claimed in claim 1,~~The process according to claim 6 wherein the heterocycle R<sup>2</sup> is unsubstituted or substituted by at least one halogen atom, C<sub>1</sub>-C<sub>20</sub>-alkyl, C<sub>1</sub>-C<sub>10</sub>-alkoxy, C<sub>2</sub>-C<sub>10</sub>-alkenyl, C<sub>7</sub>-C<sub>20</sub>-arylalkyl, C<sub>7</sub>-C<sub>20</sub>-alkylaryl, C<sub>6</sub>-C<sub>10</sub>-aryloxy, C<sub>1</sub>-C<sub>20</sub>-haloalkyl, C<sub>6</sub>-C<sub>14</sub>-haloaryl, C<sub>2</sub>-C<sub>10</sub>-alkynyl or C<sub>3</sub>-C<sub>20</sub>-alkylsilyl.
5. (currently amended) ~~A salt-like chemical compound as claimed in claim 1,~~The process according to claim 6 wherein the heterocycle R<sup>2</sup> is unsubstituted.
6. (currently amended) A process for preparing compounds of the formula (I):



where

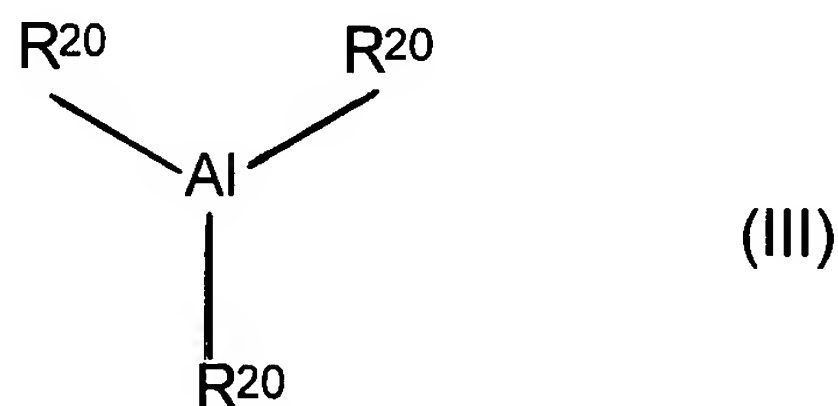
R<sup>1</sup> are identical or different and are each a hydrogen atom, a halogen atom, C<sub>1</sub>-C<sub>20</sub>-alkyl, C<sub>6</sub>-C<sub>14</sub>-aryl, C<sub>1</sub>-C<sub>10</sub>-alkoxy, C<sub>2</sub>-C<sub>10</sub>-alkenyl, C<sub>7</sub>-C<sub>20</sub>-arylalkyl, C<sub>7</sub>-C<sub>20</sub>-alkylaryl, C<sub>6</sub>-C<sub>10</sub>-aryloxy, C<sub>1</sub>-C<sub>10</sub>-haloalkyl, C<sub>6</sub>-C<sub>10</sub>-haloaryl, C<sub>2</sub>-C<sub>10</sub>-alkynyl or C<sub>3</sub>-C<sub>20</sub>-alkylsilyl;

M is an element of main group III of the Periodic Table of the Elements; and

R<sup>2</sup> is a substituted or unsubstituted heterocycle;

~~as claimed in claim 1, in which compounds of~~ wherein the compounds of formula (I) are salt-like; the process comprising firstly reacting heterocycles  $R^2$  containing elements of main group I or II of the Periodic Table of the Elements ~~are firstly reacted~~ with compounds of the formula  $(C_6R^1)_3M$  in a solvent to form compounds of the formula  $[(C_6R^1)_3MR^2]^-$  which are subsequently protonated by reaction with a proton donor, ~~where  $R^1$ , M and  $R^2$  are as defined in formula (I).~~

7. (currently amended) A process for preparing a catalyst system comprising contacting at least one organometallic compound (A) of a transition metal; at least one compound of the formula (I) prepared by a process according to claim 6;  
~~as claimed in claim 1, if desired~~ optionally an alkyl compound (B) of an element of group III or IV of the Periodic Table of the Elements; and, ~~if desired,~~ optionally at least one support component (C).
8. (canceled).
9. (new) The process according to claim 7 wherein in a first step A, the at least one support component (C) is first reacted with a first alkyl compound (B) of the formula (III),



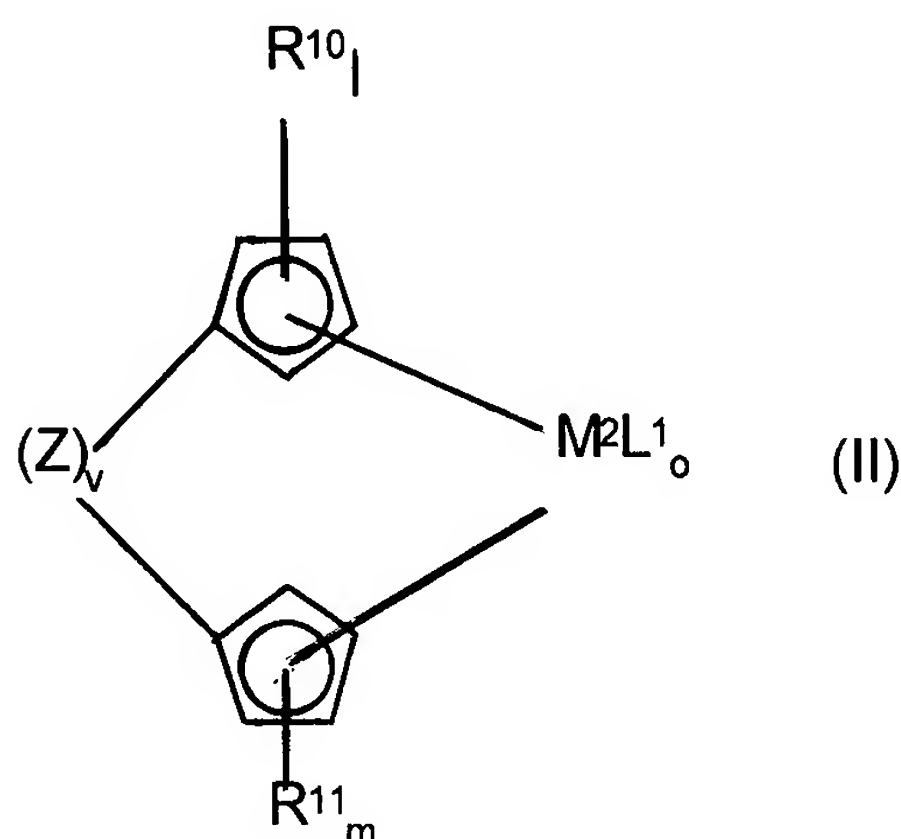
wherein

$R^{20}$  are identical or different and can be a halogen atom, a hydrogen atom or a  $C_1$ - $C_{40}$

group,

thereby forming a pretreated support wherein the pretreated support is optionally washed and/or dried;

mixing in a further step B the pretreated support with the at least one organometallic compound (A) of a transition metal complex of formula (II),



where

$M^2$  is a metal of transition group III, IV, V or VI of the Periodic Table of the Elements,

$R^{10}$  are identical or different and are each a hydrogen atom or  $Si(R^{12})_3$ , where  $R^{12}$  are identical or different and are each a hydrogen atom or a  $C_1$ - $C_{40}$  group, or  $R^{10}$  is a  $C_1$ - $C_{30}$  group, or two or more radicals  $R^{10}$  may be joined to one another in such a way that the radicals  $R^{10}$  and the atoms of the cyclopentadienyl ring which connect them form a  $C_4$ - $C_{24}$  ring system which may optionally be substituted,

$R^{11}$  are identical or different and are each a hydrogen atom or  $Si(R^{12})_3$ , where  $R^{12}$  are identical or different and are each a hydrogen atom or a  $C_1$ - $C_{40}$  group, or  $R^{11}$  is a  $C_1$ - $C_{30}$  group, or two or more radicals  $R^{11}$  may be joined to one another in such a

way that the radicals  $R^{11}$  and the atoms of the cyclopentadienyl ring which connect them form a  $C_4$ - $C_{24}$ -ring system which may optionally be substituted,

$|$  is 5 when  $v = 0$ , and  $|$  is 4 when  $v = 1$ ,

$m$  is 5 when  $v = 0$ , and  $m$  is 4 when  $v = 1$ ,

$L^1$  may be identical or different and are each a hydrogen atom, a  $C_1$ - $C_{10}$ -hydrocarbon group, a halogen atom or  $OR^{16}$ ,  $SR^{16}$ ,  $OSi(R^{16})_3$ ,  $Si(R^{16})_3$ ,  $P(R^{16})_2$  or  $N(R^{16})_2$ , where  $R^{16}$  is a halogen atom, a  $C_1$ - $C_{10}$ -alkyl group, a halogenated  $C_1$ - $C_{10}$ -alkyl group, a  $C_6$ - $C_{20}$ -aryl group or a halogenated  $C_6$ - $C_{20}$ -aryl group, or  $L^1$  is a toluenesulfonyl, trifluoroacetyl, trifluoroacetoxyl, trifluoromethanesulfonyl, nonafluorobutanesulfonyl or 2,2,2-trifluoroethanesulfonyl group,

$o$  is an integer from 1 to 4

$Z$  is a bridging structural element between the two cyclopentadienyl rings and

$v$  is 0 or 1

and the at least one compound of the formula (I); and

reacting in a further step C the material obtained in step B with a second alkyl compound

(B) of the formula (III).